RAUBE, P.V., red.; SELEKHOV, P.M., red.; FILIPPOVICH, P.V., red.;
KOGAN, F.L., tekhn. red.

[Food machinery industry in capitalist countries] Prodo-
vol'stvennoe mashinostroenie v kapitalisticheskikh stranakh.
Moskva, 1961.   335 p.   (MIRA 16:8)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy in-
formatsii mashinostroyeniya.

                          (Food machinery)

KAGANER, M.G., kand.tekhn.nauk; GAMPEL', M.G., nauchnyy red.;
FILIPPOVICH, P.V., red.; KOGAN, F.L., tekhn.red.

[Heat insulation with the utilization of vacuum] Teploizoliatsiia
s ispol'zovaniem vakuuma. Moskva, 1963. 43 p. (Moscow.
TSentral'nyi institut nauchno-tekhnicheskoi informatsii po avto-
matizatsii i mashinostroeniiu. Seriia VI: Novye materialy, no.59).
                                                    (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo
mashinostroyeniya (for Kaganer).

25678   S/122/60/000/005/017/017
A161/A130

I5 8360

AUTHORS: Nemm, V. A.; Filippovich, S. A.; - Engineers

TITLE: Investigations and practical application of polyamide slide bearings in Czechoslovakia

PERIODICAL: Vestnik mashinostroyeniya, no. 6, 1960, 72-74

TEXT: Information on bearings from a caprolactam-type polyamide called "silon" in Czechoslovakia is given. The transport research institute Výzkumný ústav dopravní in Prague conducted laboratory and service tests of silon bearings during 1954-1958. Some properties of this material are given: melting point 220°C, specific weight 1.13 g/cm^3; tensile strength 500-700 kg/cm^2; elongation 270-300%; heat resistance - Martens scale 40-45, Vik 160-180, linear expansion factor per 1°C 10-11.10^{-5}; heat conductivity 0.23 kcal/m · h°C, moisture absorption to saturation 9.5%, content of low-molecular compounds 6-12%. Two bearing types are recommended after tests: 1) either all-silon, or metal with thin silong coating, on metallic heat treated (or not) shaft trunnion; 2) all-metal bearing, and a silong bushing or coating on the shaft trunnion. Cast silon bushings are pulled on an arbor clamped in a lathe chuck, the free end expanded, then pulle
Card 1/3

pulled on the shaft trunnion using a short tapered end piece. It is recommended to prevent air pockets on the trunnion by ventilation ducts in devices used for pulling bushings on trunnions, and negative allowance on the bushing (2-3 mm on a side) to make it fit tight. Sand blasting or grooves on the trunnion improve hold. Coating with silong is recommended by dusting with a УПН-4У (UPN-4U) pistol of VNIIavtogen design, produced by Barnaul'skiy apparaturno-mekhanicheskiy zavod (Barnaul Mechanical Apparatus Plant), onto shafts rotating with 40 rpm and heated to 280°C. The coating depth with an allowance for final machining has to be 2.5-3 mm (final depth of less than 1.8 mm is not recommended). Silon bearings had been tested on automobile engines and locomotive parts, and it was stated that split bushings withstood 3 months, but solid unsplit worked for 5-9 months. Type 2 bearings (with dusted-on coating on trunnion) were worn only 0.2 mm (summary on bearing and trunnion) after 90-165,000 km on locomotives. Some faults were stated (weak adhesion to metal, expansion from humidity, heterogeneous layer structure, casting and assembly defects, etc.), but in general silon proved good. Best suitable steel composition for friction with silon is a) 0.12% C; 0.45% Mn; 0.29% Si; 0.019% P; 0.009% S; b) 0.18% C; 0.79% Mn; 0.25% Si; 0.031% P; 0.015% S. Mixed amorphous-crystalline structure was revealed in 2.5-3 mm layers by x-rays. It is, therefore, recommended to use heat treatment: holding for

Card 2/3

25670   S/122/60/000/005/017/017
              A161/A130

Investigations and practical application ...

5-10 min in oil at 160-170°C, and improving resilience after this treatment by 2 boiling in water. Apart from bearings silong is used for ball and roller bearing separators, small gears (pressed with final dimensions). The Plant im. V. I. Lenina in Plsen uses it for bearings, gages, seals, pump vanes, etc. There are 2 figures, 2 tables and 6 Soviet-bloc references.

Card 3/3

2109
2209
15.8340   2808

87886
S/114/60/000/008/010/010
E073/E535

AUTHORS: Nemm, V. A. and Filippovich, S. A., Engineers

TITLE: Application of Polyamide Plastics in Czechoslovakia

TEXT: The use of polyamide bearings is impeded by the
absence of research and practical data on this material. From that
point of view Czech experience on using bearings made of Silon
is of interest, a material similar to that of "polycaprolactam"
manufactured by Soviet industry.
(Abstractor's Note: "Silon" is a polycapronamide $(-HN(CH_2)_5CO-)_n$,
$\rho = 1.14$, b.p. 205-215°C)

Tests on an Amsler machine ($p = 45$ kg/cm^2, $v = 0.39$ m/sec,
lubrication with oil of the viscosity 5.6° E at 50°C) have shown
that the friction coefficient and the wear of rubbing pairs depend
to a great extent on the quality of the machined surface and on
the hardness of the roller. The test data are summarized in the
following table (Ref. 1):

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87866
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Application of Polyamide Plastics in Czechoslovakia

	Class 7 surface			Class 10 surface		
	wear, mg/h		friction coeffic-ient	wear, mg/h		friction coeffic-ient
	roller	specimen		roller	specimen	
Unhardened	16.6	16.2	0.07	12.8	9.2	0.03
Hardened to RC 45-48	5.8	12.0	0.05	2.4	6.4	0.03

According to work published by the Prague Scientific Research Institute for Transportation (Refs. 2 and 3), between 1954 and 1958 about 1600 Silon bearings were investigated in various locations in locomotives. It was found that ordinary thick-walled (δ = 5 to 10 mm) bushings and liners had an operating period of 3 to 7 months. The so-called "reverse pair": a) jacket (δ = 3 to 4 mm) made of a Silon tube pressed onto a shaft with diametral stretching by 2 to 6 mm and steel liners had a service life twice as long as

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E073/E535

Application of Polyamide Plastics in Czechoslovakia

ordinary bronze bearings; b) linings (δ = 1.8 to 3 mm) of journals
obtained by hot spraying of Silon powder, followed by an approp-
riate heat treatment in oil (Ref. 4), rubbing against a steel liner
showed a total wear of the rubbing pair below 0.2 mm after a run
of the locomotive of 90 to 165 thousand kilometres. The high wear
of thick bushings (liners) is attributed to the low heat conduct-
ivity of the Silon and resulting easy fusibility of the surface,
adhesion to the neck of the shaft, chipping off of the Silon and
washing away of particles with the lubricant. Using facings with
thicknesses below 1.8 mm also proved unsuitable; frequent tears and
damage of the facings, due to adhesion to the basic metal of the
journal, could be detected. Testing of the Silon bearings under
natural conditions was mostly effected at circumferential speeds of
$v \leqslant 1.2$ m/sec and specific pressures of p = 100 to 150 kg/cm^2 with
normal lubricant supply at the beginning; after running in, the oil
supply was cut down by 50%. The shaft-liner clearance was 0.1 to
0.15 mm; the metallic neck of the shaft and the liner were ground
and polished. Silon liners also proved successful in Skoda motor
cars (Ref. 5). The liners were in operation over long periods with
Card 3/4

87886

S/114/60/000/008/010/010
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Application of Polyamide Plastics in Czechoslovakia

specific pressures of 80 kg/cm^2 at $v = 1$ m/sec, whereby the temp-
erature of the circulating oil T $\leqslant$ 130°C and after a 22 000 km
run the wear was less than 0.02 mm. In addition to the above men-
tioned applications, Silon has been used in Czechoslovakia in the
manufacture of separators, ball and roller bearings (Refs. 6 and
7). At the V. I. Lenin Works, Pilsen, Silon is extensively used
as a material for seals, gears, bearings, gauges, blades of the
runner wheels of pumps, blades of fans, and model turbines, etc.
The cost of most Silon components is 50 to 60% below that of
similar metallic ones. The Czech experience could be usefully
applied in new designs of turbo-machinery, pumps, compressors,
controller, reductor gear and other parts. As regards the physico-
mechanical and the anti-friction properties (particularly at speeds
of 0.5 to 1.2 m/sec and pressures of p $\leqslant$ 150 kg/cm^2), they are
fully suitable for replacing metals and in many cases they have a
better wear resistance. There are 1 table and 7 Czech references.
(NOTE: This is virtually a complete translation).

Card 4/4

NEMM, V.A., inzh.; FILIPPOVICH, S.A., inzh.

Investigation and use of polyamide sliding bearings in Czecho-
slovakia. Vest.mash. 40 no.5:72-74 My '60.   (MIRA 14:4)
            (Czechoslovakia—Bearings (Machinery))

FILIPPOVICH, S.A., inzh.

Hydrodynamical similarity emanating from the principal equations
of Navier-Stokes. Energomashinostroenie 7 no.4:47-48 Ap '61.
(MIRA 14:7)
(Hydraulic machinery—Fluid dynamics)

NEMM, V.A.; FILIRPOVICH, S.A.

Machine for testing bushings operating under heavy loads. Zav.lab. 27
no.3:341-344 '61. (MIRA 14:3)

1. Leningradskiy metallicheskiy zavod im. Stalina.
                (Testing machines)

NEMM, V.A., inzh.; FILIPPOVICH, S.A., inzh.

Using nonmetallic bearings in friction joints of motor vehicles.
(MIRA 14:10)
Vest.mash. 41 no.10:42-44 O '61.
    (Nonmetallic bearings)   (Motor vehicles)

FILIPPOVICH, S.A., inzh.

Accuracy of determining the efficiency of natural hydraulic
turbines in acceptance tests. Energomashinostroenie 7 no.11:44-
45 N '61.   (MIRA 14:11)
                         (Hydraulic turbines--Testing)

S/122/63/000/002/006/012
D262/D308

AUTHOR: Filippovich, S. A., Engineer

TITLE: Conversion of characteristics of centrifugal pumps

PERIODICAL: Vestnik mashinostroyeniya, no. 2, 1963, 43-45

TEXT: The article deals with the problem of conversion of the da-
ta obtained from the scale model tests on the actual size pumps.
In particular the conversion of hydraulic efficiency according to
various sources is discussed and the calculation formulas presen-
ted. The problem of calculation of the reduced diameter of the im-
peller to obtain new lowered values for the pump discharge head
and capacity, at the same speed, is also analyzed, several calcu-
lation methods submitted, and the results compared. The nearest
approximation is obtained with the formula:

$$D_1 = \sqrt{\frac{H_1}{H_0}(D_o^2 - D_1^2) + D_1^2}$$

Card 1/2

Conversion of characteristics ...

where D_i, D_o are respectively the reduced and initial impeller diameters. D_1 is the diameter of the impeller inlet, and H_i and H_o are respectively the reduced and initial discharge heads. There are 4 figures and 1 table.

Card 2/2

S/114/63/000/001/006/007
D262/D308

AUTHOR: Filippovich, S.A., Engineer

TITLE: Application of molybdenum disulfide to the lubrica-
               tion of thrust and journal bearings of water turbines

               Vol. 9

PERIODICAL: Energomashinostroyeniye, no. 1, 1963, 44-46

TEXT: The article reviews the experiments conducted in
Czechoslovakia by SVUMT and SVUTT with various lubricants containing
up to 3% by volume of MoS_2 added in the form of powder or suspension.
Anti-frictional properties and stability of various compositions are
investigated, and the effects of test duration on temperature of
friction surfaces for various loadings, and constant or variable
working conditions are established. The results of these experiments
and some practical industrial applications confirmed in general the
usefulness of MoS_2, especially at high temperatures (up to $550^{\circ}C$),
in high pressure vessels, and in various mechanisms of water turbines
at assembling and starting-up operations. Conclusions: More research
work is needed to investigate anti-frictional and anti-scoring prop-

Card 1/2

Application of molybdenum ...

S/114/63/000/001/006/007
D262/D308

erties of MoS_2, and to devise methods of its application in industry.
There are 3 figures and 3 tables.

Card 2/2

L 12577-63   EPF/EWP(j)/EPF(c)/EWT(m)/BDS   AFFTC/ASD   Pg-4/Pc-4/
Pr-4   RM/WW
ACCESSION NR: AP3003318   S/0191/63/000/007/0069/0073

AUTHOR: Filippovich, S. A.   68

TITLE: Effect of medium on the stability of epoxy adhesive compounds

SOURCE: Plasticheskiye massy*, no. 7, 1963, 69-73

TOPIC TAGS: ChS-Epoxy 100 resin, plastics' stability characteristics

ABSTRACT: Author gives a summary of what has been accomplished in Czechoslovakia
during 1958-1961 concerning the use of epoxy resins for cementing metals. Work
which was carried out by the authors cited in the references is discussed. These
cited authors investigated the effect of such media as elevated temperatures,
humidity, rain water, condensation chamber, salt vapors, and γ-radiation with
CO^{60} on the stability characteristics of the Czech ChS-Epoxy 100 resin. Results
are calculated mathematically and given in a table. Discussion of results is
mathematical. Curves are constructed for various relationships. Orig art. has:
6 figures and 3 tables.

Card   1/2

FILIPPOVICH, S.A., inzh.

Effect of the unloading slots of the runner blades on the quality of the performance of centrifugal pumps. Energomashinostroenie 9 no.5:42-43 My '63.   (MIRA 16:7)

(Centrifugal pumps)

FILIPPOVICH, S.A., inzh.; NEMM, V.A., inzh.

Some data on research and use of diagonal hydraulic turbines.
Energomashinostroenie 9 no.8:45-48 Ag '63.   (MIRA 16:8)
(Hydraulic turbines)

FILIPPOVICH, S.A., inzh.

Design of centrifugal pumps. Energomashinostroenie 9 no.9:39-42
S '63.   (MIRA 16:10)

FILIPPOVICH, S.A., inzh.

Dimensionless characteristic coefficients for hydraulic machines.
Energomashinostroenie 11 no.3:47-48, 3 of cover Mr '65.

(MIRA 18:6)

FILIPPOVICH, S.A., inzh.

Some foreign hydraulic pump storage systems. Energomashinostroenie
11 no.6:45-48, p.3 of cover Je '65.   (MIRA 18:7)

Ca

The role of humoral stimulants in changing the reactivity of digestive glands (pancreas and salivary glands). I. S. L. Filippovich. *Bull. biol. méd. exptl. U. R. S. S. 6*, 30-4(July, 1938).—The vagus nerve of dogs was stimulated by means of an induction current after intravenous injection of chloral hydrate (0.05-0.15 cc. of a 10% aq. soln. per kg. of body wt.). As compared with control animals, there was a definite reduction in the pancreatic secretion with large doses of the chloral hydrate, while small doses produced a diphase effect. After severing of the splanchnic nerve there was an increase in the concn. of org. substances and an intensification of the proteolytic digestive effect of the pancreatic juice, with an increase in secretion. After eating, administration of chloral hydrate produced a reduction in enzymic digestion which was connected with the increase in vagus secretion. II. *Ibid.* 35-8.—Elec. stimulation of the maxillary gland through the chorda tympani after injection of chloral hydrate produced characteristic changes in the salivary secretion. Small doses (0.05 g. per kg. of body wt.) produced an initial increase in salivation which was followed by a repression of secretion. An increase in the content of org. salivary substances was also observed. Expts. with acetylcholine gave corresponding results.

IV. The influence of mental excitement on the reactivity of the parotid gland. *Ibid.* 8, 248-50(1939).—Expts. were performed on 2 dogs with permanent parotid fistula. The amt. and the org. and inorg. constituents of the secretion were recorded every 15 min. after the feeding of 50 g. of biscuit. Showing the dogs a cat increased the amt. of secretion only during the first 30 min.; later there was an increase in org. substances, while the amt. and content in inorg. substances remained unchanged as compared with the control period. During the days after the emotional excitation the amt. of salivary secretion remained normal. The inorg. constituents were reduced, the org. increased, and the deviation of the individual values was greater. The changes are explained as due to the action of adrenaline. A structural change in the cells of the glands is assumed to be the cause of the long aftereffect. Through *Chem. Zentr.* 1940, I, 78, 1366. M. G. Moore

PROCESSES AND PROPERTIES INDEX

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11F

The role of humoral stimulants in changing the reactivity of digestive glands (parotid gland and pancreas). III. S. I. Filippovich. *Bull. biol. méd. expl. U. R. S. S.* 6, 187-9(1938); *Chem. Zentr.* 1940, I, 3287; cf. *C. A.* 33, 6044[7], 6048[1].—Intravenous injections of adrenaline in varying concns. (0.01-0.1 mg./kg. wt.) caused anomalous behavior of the salivary secretion and produced changes in the chem. comps. of the saliva after stimulation of the chorda tympani. Analogous expts. carried out after extirpation of the upper cervical ganglion and expts. on dogs with permanent parotid fistula (after alimentary stimulation) showed the humoral factors to have a direct influence on the neuroglandular app.   M. O. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Changes of salivation under the influence of reduced barometric pressure. S. L. Filippovich. *Bull. biol. méd. exptl. U. R. S. S.* **9**, 338-40(1940)(in English).—Exposure of dogs with parotid-gland fistulas to altitudes of 6000-8000 m. in a "baro-chamber" for 16 hrs. caused a small but distinct decrease in salivary secretion which continued for 2-7 days, and which in some cases was followed by an increase in secretion. Org. solid residue decreased in response to the 1st stimulation (biscuit powder) but increased sharply with later stimuli. Considerable irregular fluctuation of inorg. solid residue was observed. The administration *per os* of dil. HCl immediately after exposure causes a marked decrease in secretion with a strong increase in org. solid residue. In human subjects, decreased pressure caused an increase in salivary secretion.

S. A. Karjala

LEPESHINSKAYA, O.B., professor; USIYEVICH, M.A., professor; ASRATYAN, E.A.,
professor; SMIRNOV, A.I., professor; FILIPPOVICH, S.I., doktor meditsin-
skikh nauk; VOLOKHOV, A.A., professor; FILIMONOV, I.N., professor;
SNYAKIN, P.G., professor; CHERNIGOVSKIY, V.N., professor; SPERANSKIY,
A.D., akademik; DOLIN, A.O., doktor meditsinskikh nauk; KOTLYAREVSKIY,
L.I., professor; NEGOVSKIY, V.A., professor; KASATKIN, N.I., professor;
STEL'CHUK, I.V., professor; YEGOROV, B.G., professor; BAKULEV, A.N.,
professor; SMIRNOV, L.I., professor; USPENSKIY, V.N., redaktor; PETROV,
S.P., redaktor.

[Teachings of I.P.Pavlov in theoretical and practical medicine]
Uchenie I.P.Pavlova v teoreticheskoi i prakticheskoi meditsine. Vol.2.
Moskva, Izd-vo Ministerstvo zdravookhraneniia. SSSR, 1953. 611 p.
(MLRA 7:3)

1. Deystvitel'nyy chlen AMN SSSR (for Lepeshinskaya, Chernigovskiy and
Bakulev). 2. Chlen-korrespondent Akademii nauk SSSR (for Asratyan).
3. Chlen-korrespondent AMN SSSR (for Smirnov, Filimonov, Yegorov and
L.I.Smirnov). 4. Moscow. TSentral'nyy institut usovershenstvovaniya vrachey.
(Pavlov, Ivan Petrovich, 1849-1936) (Nervous system) (Physiology)

FILIPPOVICH, S.I.

Ivan Petrovich Razenkov; obituary. Zhur.vys.nerv.deiat. 4 no.6:
930-931 N-D '54.   (MIRA 8:7)
          (OBITUARIES,
              Razenkov, Ivan P.)

FILIPPOVICH, S.I.

Corticovisceral relationships in the development and healing
of experimental gastric ulcer in dogs. Biul.eksp.biol. i med.
37 no.5:17-21 My '54.   (MLRA 7:7)

1. Iz laboratorii fiziologii i patologii pishchevareniya (zav.
deystvitel'nyy chlen AMN SSSR prof. I.P.Razenkov) Instituta
fiziologii (dir. deystvitel'nyy chlen AMN SSSR prof. V.N.
Chernigovskiy) AMN SSSR.
          (PEPTIC ULCER, experimental,
            *conditioned reflex salivary secretion & unconditioned
            gastric secretion in dogs)
          (REFLEX, CONDITIONED,
            *conditioned salivation & unconditioned gastric secretion
            in exper. peptic ulcer)
          (GASTRIC JUICE,
            *secretion, unconditioned, & conditioned salivation in
            exper. peptic ulcer)

Filippovich, S. I.

**1619. PHYSIOLOGICAL CHARACTERISTICS OF FASTING GASTRIC JUICE SE-
CRETION AND OF SOME EXPERIMENTALLY PRODUCED PATHOLOGICAL
PROCESSES IN DOGS (Russian text) - Filippovich S. I.** Inst. of Normal
and Pathol. Physiol., USSR Acad. of Med. Scis, Moscow - BIULL. EKSPER.
BIOL. I MED. 1956, 42/12 (17-21) Tables 2 Illus. 3

The mode of juice secretion was studied in dogs with a stomach fistula and an isolat-
ed stomach (after I. P. Pavlov and Heidenhain) and with experimental gastric ulcer
developing after administration of cinchophen in doses of 0.1-0.2 g. per kg., and
also in the presence of a sterile abscess. Two series of experiments were carried
out on 8 dogs. In experimental cinchophen-ulceration a continuous secretion from
the fasting stomach was noted; the juice was characterized by a high degree of
acidity and a strong digestive activity. Daily (from 7-12 days on) introduction of
0.5 g. of NaBr into the stomach through the fistula markedly lowered the secretion,
while introduction of atropine (from 7-10 days on) did not produce such a definite,
sustained and long-lasting lowering of the secretion. It was found that the action of
bromide was not a local one, since it was effected only when para-sympathetic in-
nervation was preserved. With sterile abscesses produced by subcutaneous injec-
tion of turpentine, there was also secretion of juice in the fasting stomach observed
during the process of the abscess ripening, but this juice was characterized by a
rather low degree of acidity and feeble power of digestion. The juice secretion of
the fasting stomach stopped in the period of resolution of the abscess. NaBr did
not show any influence on the amount of secretion in these experiments. The author
recommends the experimental and clinical i.v. and s.c. administration of various
substances for the purpose of analysis of the digestive capabilities of the gastric
glands, and for elucidating the 2nd phase of gastric secretion in particular.
References 8.   Sbitneva - Moscow (S)

FILIPPOVICH, S.I.; MATROSOVA, Ye.M.

Problems in the physiology of digestion at the 20th Congress of
Physiologists held in Brussels on July 30 - August 4, 1956; brief
review. Fop.pit. 16 no.2:89-92 Mr-Ap '57.   (MLRA 10:10)
          (DIGESTION)

FILIPPOVICH, S.I.; MATROSOVA, Ye.M.

Problems in the physiology of digestion at the Twentieth International
Congress of Physiologists. Fiziol.zhur. 43 no.3:292-297 Mr '57.
        (DIGESTION)   (MIRA 10:9)

MALKIMAN, I.V., MUZYKANTOV, V.A., FILIPPOVICH, S.I. (Moskva)

Significance of I.P. Razenkov's investigations in the field of digestive physiology and pathology and certain results of their further development; 70th anniversary of his birth. Fiziol. zhur. 44 no.11:1091-1094 N'58   (MIRA 11:12)

(GASTROENTEROLOGY,
        contributions of I.P. Razenkov (Rus))
(BIOGRAPHIES,
        Razenkov, I.P., (Rus))

2896. COMPENSATION OF FUNCTIONS OF THE DIGESTIVE SYSTEM AFTER PARTIAL RESECTION OF THE STOMACH IN DOGS (Russian text) - Filippovich S. I. Inst. of Norm. and Pathol. Physiol., USSR Acad. of Med. Scis, Moscow - BYULL. EKSPER. BIOL. i MED. 1958, 45/9 (3-8)

Results of examination of the compensatory processes and the function of the digestive system after partial (2/3 and 4/5) resection of the stomach in dogs are reported. These data were obtained in experiments on 28 dogs, observed up to 2 yr. after the operation. The secretory function and the enzyme secretion of the stomach pancreas and small intestine, as well as the motor function and absorptive property of the small intestine, were studied. Experiments demonstrated that compensation of the functions of the digestive system takes place mainly by way of reconstruction of the secretory motor function of the small intestine. Certain data concerning the mechanisms of compensatory reactions were also obtained. The role of the extramural intestinal innervation and the functional condition of the food centre in compensatory processes was studied in particular.   (II. 9*)

FILIPPOVICH, S.I.

Compensatory function of the digestive system following gastric re-
section in dogs.[with summary in English]. Biul.eksp.biol. i med.
46 no.9:3-8 S'58   (MIRA 11:11)

1. Iz laboratorii fiziologii i patologii pishchevareniya
(zav. - prof. S.I. Filippovich) Instituta normal'noy i patologicheskoy
fiziologii (dir. - deystvitel'nyy chlen V.N. Chernigovskiy) AMN SSSR
Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.
Chernigovskim.
            (GASTERECTOMY, exper.
                postop. compensatory funct. (Rus))

FILIPPOVICH, S.I.; MUZYKANTOV, V.A.

Conference on the physiology and pathology of digestion, held in memory of I.P. Razenkov. Vop.pit. 18 no.5:90-94 S-O '59.

(MIRA 13:1.)

(DIGESTIVE ORGANS)

PARIN, V.V., red.; FILIPPOVICH, S.I., prof., red.; ZAMYCHKINA, K.S., red.;
MALKIMAN, I.V., red.; SOVETOV, A.N., red.; BEL'CHIKOVA, Yu.S.,
tekhn. red.

[Activity of the digestive system and its regulation under normal
and pathological conditions] Deiatel'nost' pishchevaritel'noi siste-
my i ee reguliatsiia v norme i patologii. Pod obshchei red. V.V.Pari-
na. Moskva, Medgiz, 1961. 259 p.   (MIRA 14:11)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut normal'noy i
patologicheskoy fiziologii. 2. Deystvitel'nyy chlen AMN SSSR (for
Parin). 3. Laboratoriya fiziologii i patologii pishchevareniya Insti-
tuta normal'noy i patologicheskoy fiziologii AMN SSSR, Moskva (for
Zamychkina).
    (DIGESTION) (DIGESTIVE ORGANS—SURGERY) (STOMACH—ULCERS)

FILIPPOVICH, Sof'ya Iosifovna, prof.; BYKOV, V.D., red.; ROMANOVA, Z.A., tekhn. red.

[Adaptive processes in disorders of the activity of the digestive system]O prisposobitel'nykh protsessakh pri narusheniiakh deiatel'nosti pishchevaritel'noi sistemy. Moskva, Medgiz, 1962. 166 p.   (MIRA 15:10)
        (ADAPTATION (BIOLOGY))
        (DIGESTIVE ORGANS—DISEASES)

FILIPPOVICH, S.I.; AMIROV, N.Sh.; VOLKOVA, T.V.; ZAMYCHKINA, K.S.;
MALKIMAN, I.V.; MARTSEVICH, M.S.; NILOVA, N.A.; GOLUBYKH,
L.I., red.; BUKOVSKAYA, N.A., tekhn. red.

[Compensatory processes in the digestive system following
resection of the stomach and the small intestine;
experimental studies] Kompensatornye protsessy v pishche-
varitel'noi sisteme posle rezektsii zheludka i tonkogo ki-
shechnika; eksperimental'nye issledovaniia. Moskva, Med-
giz, 1963. 290 p.   (MIRA 17:3)

FILIPPOVICH, S.I. (Moskva)

Some principles of the correlation of the structure and function
in disorders of the entirety of the digestive system. Vest. AMN
SSSR 20 no.1:59-62 '65. (MIRA 18:4)

FILIPPOVICH, S.M.

KINDYAKOV, V. I.; BAYADINOV, A. N.; FILIPPOVICH, S. M.; NIKONCVA, O. S.

Foot-and-Mouth Disease

Mutability of the virus of hoof and mouth disease. Veterinariia, 29, No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

FILIPPOVICH, S. M.   Cand Vet Sci -- (diss) "Studies _on_ the _Foot and Mouth Disease_
Variability of the Typical Properties of the ~~Virus of Stomatitis~~
~~Aphthosa~~ _virus._" Alma-Ata, 1957.   11 pp 20 cm. (Min of Agriculture USSR,
Alma-Ata Zooveterinary Inst), (KL, 26-57, 111)

USSR/Virology - The Virus of Foot-and-Mouth Disease.   E.

Abs Jour   : Ref Zhur - Biol., No 19, 1958, 85835

Author   : Filippovich, S.M.

Inst   : Institute of Veterinary Medicine of the Kazakh Affiliate
               of VASKhNIL

Title   : The Use of the Complement Fixation Test in Typing Foot-
               and-Mouth Disease Virus.

Orig Pub   : Tr. In-ta Vet. Kazakhsk. Fil. VASKhNIL, 1957, Vol. 8,
               85-88.

Abstract   : No abstract.

Card 1/1

                                  - 12 -

USSR / Virology. Human and Animal Viruses. FMD Virus.   E

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5303.

Author : Filippovich, S. M.
Inst   : Not given.
Title   : Studies on Variability of Type Properties of
          Foot-and-Mouth Disease Virus.

Orig Pub: Veterinariya, 1957, No 4, 45-59.

Abstract: Tests were carried out in which guinea pigs and
          cattle were infected with the same type (in dif-
          ferent experiments with different types) of foot-
          and-mouth disease virus. After repeated inocu-
          lations, a virus with an antigenic structure of
          a different type was isolated from the animals.
          The author considers that in repeated inocula-

Insl. Vet. Med, Kazakh Affil VASKh NIL

Card 1/2

13

tions with the same strain of foot-and-mouth
disease virus in a single immune animal organ-
ism, several strains of virus with different
antigenic properties can be obtained. -- N. V.
Kozlyakov.

Card 2/2

GRODZINSKIY, A.M.

FISHER, A.; DRYAZHZHININ, A.; DUDAKOVA, K.; FILIPPOVICH, V.

Readers' letters. Muk.-elev.prom. 29 no.1:28 Ja '63.

(MIRA 16:4)

1. Glavnyy inzhener Omskogo oblastnogo mel'nichnogo tresta
(for Fisher). 2. Direktor Biyskoy mashinoispytatel'noy stantsii
(for Dryazhzhinin). 3. Zaveduyushchaya otdelom ekonomicheskikh
issledovaniy Biyskoy mashinoispytatel'noy stantsii (for
Dudakova). 4. Petropavlovskiy elevator Severo-Kazakhstanskoy
oblasti (for Filippovich).

(Grain)

FILIPPOVICH, V.A., kand.med.nauk (Moskovskaya oblast')

Comparative evaluation of the effectiveness of some methods in
the surgical treatment of lacrimation in the pathology of the
puncta lacrimlia. Vest.oft.   no.3:50-51 '61.   (MIRA 14:9)
                   (LACRIMAL ORGANS—SURGERY)

FILIPPOVICH, V.I., nauchnyy sotr.; RUBANOVA, L., red.; GRODSKAYA,R.,
tekhn. red.

[Sports gymnastics; program for the sports sections of
physical education and training groups in eight-year and
secondary schools] Sportivnaia gimnastika; programma dlia
sportivnykh sektsii kollektivov fizicheskoi kul'tury vos'-
miletnikh i srednikh shkol. Moskva, Izd-vo "Fizkul'tura i
sport," 1962. 83 p.   (MIRA 17:2)

1. Soyuz sportivnykh obshchestv i organizatsiy SSSR. TSentral'-
nyy sovet. 2. Nauchno-issledovatel'skiy institut fizicheskogo
vospitaniya i shkol'noy gigiyeny Akademii pedagogicheskikh nauk
RSFSR (for Filippovich).

ZHUZE, V.P., kandidat fiziko-matematicheskikh nauk, redaktor; VERE -
MEYENKO, G.D., bibliograf; GUSENKOVA, Ye.I., bibliograf;
FILIPPOVICH, V.N., redaktor; ARONS, R.A., tekhnicheskiy redaktor.

[Scientific literature on semiconductors; bibliography for 1920-
1952] Nauchnaia literatura po poluprovodnikam; bibliografiia 1920-
1952. Moskva, 1955. 631 p.   (MLRA 8:12)

1. Akademiya nauk SSSR. Institut poluprovodnikov, Leningrad.
    (Bibliography--Semiconductors)

FILIPOVICH, V.N.

On the theory of X-ray scattering by oriented polymers
and other systems with axial macroscopic isotropy.
Fiz. tver. tela 4 no.11:3244-3253 N '62. (MIRA 15:12)

1. Institut khimii silikatov imeni I.V. Grebenshchikova
AN SSSR, Leningrad.
               (X rays--Scattering)   (Systems (Chemistry))

FILIPPOVICH, V. N.

"On connection between the structures of melt, glass and products of its crystallization."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 Mar 64.

KALININA, A. M.; FILIPPOVICH, V. N.

"Peculiarities of crystallization of some lithium silicate and lithium alumosilicate glasses."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 May 64.

L 17730-63   EWA(b)/EWT(m)/BDS   Pa-4   RM

ACCESSION NR: AP3004285   S/0079/63/033/007/2130/2133

AUTHORS: Filippovich, Ye. I.; Luzgina, V. N.; Yevestigneyeva, R. P.; Preobrazhenskiy, N. A.

TITLE: Studies in the dipyrrylmethene series.   5. Synthesis of asymmetric dipyrrylmethenes and dipyrrylmethanes

SOURCE: Zhurnal obshchey khimii, v. 33, no. 7, 1963, 2130-2133

TOPIC TAGS: dipyrrylmethene, dipyrrylmethane, pheoporphyrin, chlorophyll, pyrrole, Dieckmann reaction, isonitrosomalonic ester

ABSTRACT: This a further study of intermediates for the synthesis of pheoporphyrins related to chlorophyll. Three asymmetric dipyrrylmethenes substituted with methyl, acetyl, carbethoxy, and propionic acid side-chains were prepared by the acid-catalyzed condensation of the appropriate pyrrole aldehyde and 2,5-unsubstituted pyrrole. The use of a halomethylpyrrole instead of the aldehyde gave the corresponding dipyrrylmethane. The feasibility of using meso-substituted carbethoxymethyl compounds to prepare the pheoporphyrin system was demonstrated by the Dieckmann cyclization.

Card 1/2

L 17730-63

ACCESSION NR: AP3004285

The condensation of isonitrosomalonic ester and the sodium salt of
hydroxymethyleneacetoacetic ester with zinc dust provided a
simplified synthesis of 3-methyl-2,4-dicarbethoxypyrrole in 30.8%
yield. Orig. art. has: no graphics.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii
im. V. M. Lomonosova (Moscow Institute for Fine Chemical
Technology)

SUBMITTED: 29May62   DATE ACQ: 15Aug63   ENCL: 00

SUB CODE: CH   NO REF SOV: 001   OTHER: 007

Card 2/2

AUTHOR: FILIPPOVICH, Ye..I.   41-1-9/15

TITLE: Structure of the Divergent Integrals of the S-Matrix in
            α - Representation (Structura raskhodyashchikhsya integralov
            S-matritsy v α - predstavlenii)

ABSTRACT: The author investigates a problem set up by the Academician
            N.N. Bogolyubov which starts from a publication of Bogolyubov
            and Parasyuk (see Ref.1). The author considers the inte-
            gral

$$I = \int_0^\infty \prod_{l=1}^{L} d\alpha_l I_M(\alpha_1) \int_{-\infty}^{\infty} d^4 p_1 z_1(p_1) \times \exp\left\{ i\alpha_1(p_1^2 - m_1^2 + i\varepsilon) \right\} \times$$

$$\times \prod S \left(k_s + \sum_{l=1}^{L} p_1 l_1^5 \right)$$

It is shown how to carry out an explicit integration with
respect to p_1 . The structure of the remaining integrals in
terms of the variables α_1 is then investigated. 2 Soviet
references are quoted.

Card 1/2

Structure of the Divergent Integrals of the S-Matrix in   41-1-9/15
α - Representation

ASSOCIATION. Kiyev State University (Kiyevskiy gosudarstvennyy universitet)
SUBMITTED: 10 October 1957
AVAILABLE: Library of Congress

        1. Integral equations-Theory

Card 2/2

AUTHOR: Filippovich, Ye.I. (Kiyev)   SOV/41-10-2-10/13

TITLE: On the Application of the Method of Riesz in Quantum Field
            Theory (O primenenii metoda Rissa v kvantcvoy teorii polya)

ABSTRACT: For the treatment of the diverging integrals of quantum theory
            the author proposes a method which combines the method of Riesz
            with set-ups of Hadamard. The method is not more profitable
            than well-known older methods, but it seems to be more com-
            plicated.
            There are 6 references, 4 of which are Soviet, 1 Polish, and
            1 French.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University)

            1. Physics   2. Mathematics

Card 1/1

FILIPPOVICH, Ye. I.: Master Phys-Math Sci (diss) --   "The use of the methods of
Riss and Adamar in constructing derivatives of causal functions in the quantum
field theory". Kiev, 1959. 7 pp (Acad Sci Ukr SSR, Inst of Math), 150 copies
(KL, No 10, 1959, 123)

MIROSHNICHENKO, L.D.; FILIPPOVICH, Ye.I.; YEVSTIGNEYEVA, R.P.; PREOBRAZHEN-
SKIY, N.A.

Prototropic rearrangement in the dipyrrylmethene series. Dokl. AN
SSSr 134 no.5:1100-1103 O '60.   (MIRA 13:10)

1. Moskovskiy institut tonkoy khimicheskiy tekhnologii im. M.V.
Lomonosova. Predstavleno akademikom A.N.Nesmeyanovym.
                        (Methene)

FILIPPOVICH, Ye.I.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Synthetic studies in the dipyrrylmethene series. Zhur.ob.khim. 30
no.10:3253-3257 O '61.   (MIRA 14:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.
                    (Dipyrrlmethene)

FILIPPOVICH, Ye.I.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Dipyrrolylmethene series. Part 3: Synthesis of meso-substituted dipyrrolylmethenes. Zhur.ob.khim. 31 no.9:2968-2972 S '61.
(MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Methene)

MIROSHNICHENKO, L.D.; YEVSTIGNEYEVA, R.P.; FILIPPOVICH, Ye.I.;
    PREOBRAZHENSKIY, N.A.

Dipyrrolylmethene series. Part 5: Infrared absorption spectra of
meso-substituted dipyrrolylmethenes. Zhur.ob.khim. 31
no.9:2975-2983 S '61.   (MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.
Lomonosova.

                    (Methene--Spectra)

35080

S/704/61/000/002/001/006
D201/D302

16.6800 (1250, 1327, 1329)

AUTHOR: Filippovich, Ye.I., Candidate of Physico-Mathematical Sciences

TITLE: Application of the Bernouilli method in electronic computer calculations

SOURCE: Ukraine. Gosudarstvennaya planovaya komissiya. Institut avtomatiki. Avtomatizatsiya i priborostroyeniye; sbornik nauchnykh trudov, no. 2, Kiyev, 1961, 25-30

TEXT: The author suggests a method of determining the roots of algebraic and transcendental equations based on the Bernouilli method. In contrast to the Lobachevskiy and Bernouilli methods, the method proposed avoids the need to evaluate rapidly increasing exponential expressions. The method is based on the following theorem: Let $f(z)$ be a function analytical within a certain region Ω of zero, containing a single-valued real root λ and let inside the Ω Eq. (1)

$$f(z) = \sum_{s=0}^{\infty} f_s z^s$$

Card 1/3

Application of the ...

Then Eq. (2) $\lambda^{-1} \equiv \lim\limits_{p \to \infty} g_0^{(p)}$ where g_0^p is found by recurrent for-

mulae (3) $g_s^p = \dfrac{g_{s+1}^{(p-1)}}{g_0^{(p-1)}} - \dfrac{f_s+1}{f_0}$; $p \geqslant 1$. and $g_s^{(o)}$ - the coefficient of

the series (4) $g(z) = \sum\limits_{s=0}^{\infty} g_s z^s$ of an arbitrary analytical in the

region Ω function $g(z)$ such that Eq.(5), $\lim\limits_{z \to \lambda} \dfrac{f(z)}{g(z)} = 0$. This theorem

makes it possible to find real roots. The complex roots are determined
from $g_s^{(p)}$ when the inequality (22) $(g_0^{(p)} \Delta^2_{(p+1)})^2 + 4 g_0^{(p)} \Delta_{p+1} (\Delta_{(p)})^2 < 0$

where Eq.(23) $\Delta^2_{p+1} = \Delta_{p+1} - \Delta_p$ is satisfied. It is further shown

Card 2/3

Application of the ...

S/704/61/000/002/001/006
D201/D302

that in the process of evaluating roots of equation $f(z) = 0$ from the values of $g_s(p)$, the latter remain finite. Thus the process of computation of $g_s(p)$, while retaining the advantages of the Bernouilli method, may be successfully solved by a digital computer with a properly chosen scale. There is 1 non-Soviet-bloc reference.

Card 3/3

42780
S/194/62/000/011/014/062
D201/D308

16.8050

AUTHOR: Filippovich, Ye. I.

TITLE: Certain problems of statistical dynamics of automatic control systems

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 11, 1962, 43, abstract 11-2-58p (Sb. nauch. tr. In-t avtomatiki gosplana UkrSSR, 1961, no. 2, 31-41)

TEXT: The author considers the problem of finding the optimum transfer function of the linear system $k(t)$, with the control signal $y(t) = g(t) + m(t)$ and the disturbance $n(t)$ applied to the input, where $m(t)$ and $n(t)$ are stationary random functions and $g(t)$ - a given nonrandom function. The criterion of optimality is the minimum of the r.m.s. error. In addition

$$x(t) = \widehat{H}y(t) = \int_{-\infty}^{\infty} H(t - \tau)y(\tau)d\tau \qquad (1)$$

Card 1/2

Certain problems of ...   S/194/62/000/011/014/062
                                           D201/D308

where $x(t)$ - the output signal; $\widehat{H}$ - a given linear operator of the transformation of $y(t)$, $H(t - \tau)$ is the kernel of this operator. In the literature this problem is solved for the case when $g(t)$ and the Fourier transform $H(\omega)$ of the kernel $H(t - \tau)$ are polynomials in t and ω. The author gives a solution for arbitrary functions $g(t)$ and $H(t)$, whose Fourier transforms are either ordinary or generalized. The expression for $k(\tau)$ is derived from (1) and has a constant A; the value of which for the optimal system is found from the condition of minimum r.m.s. error. A concrete example of calculating the optimal transfer function is given. 1 figure. 5 references. /Abstracter's note: Complete translation./

Card 2/2

FILIPPOVICH, Ye.I.; LUZGINA, V.N.; YEVSTIGNEYEVA, R.P.; PREOBRAZHENSKIY, N.A.

Dipyrrylmethenes. Part 5: Synthesis of asymmetric dipyrrylmethenes and dipyrrylmethanes. Zhur.ob.khim. 33 no.7:2130-2133 Jl '63.

(MIRA 16:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni V.M.Lomonosova.

(Pyrrole) (Porphyrins)

simplified procedure for setting up problems

oo. Texan. Kibernetika, Kiyev

procedure is proposed for assembling

AR5012994

... equations, as a result of which the selection of suitable values for ... ... becomes cumbersome. In ... ...

... scheme for setting up the equations ... those cases when nonlinear elements such as multiplication and division occur ... the analog solution. S. Raskutin.

L 1856-66
ACCESSION NR: AR5009083   UR/0271/65/000/003/B069/B069
                                        681.142:001

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 3B438

AUTHOR: Filippovich, Ye. I.

TITLE: Simplified method for programing problems on analog computers

CITED SOURCE: Sb. Tekhn. kibernetika, Kiyev, Gostekhizdat, USSR, 1963, 91-96

TOPIC TAGS: analog computer, analog computer programing

TRANSLATION: A method is suggested for composing the block diagram of
programing and for determining the transmission factor, which considerably
facilitates the solution of higher-order differential equations on analog computers.
A fundamental block diagram corresponding to the initial set of equations has a
number of elements equal to the number of terms in the right-hand member of the
set of equations; the transmission factor is equal to the coefficient of the set.
From this block diagram, a programing scheme is derived whose coefficients are

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L 1856-66
ACCESSION NR: AR5009083

C

determined from the fundamental-diagram coefficients according to simple rules.
These units are used as elements of the fundamental diagram: $\sum$-unit yielding a
sum of inputs, p^k — a k-order derivative of the input sum; p^k — k-integral of the
input sum; [Translator's note: The Russian original is not clear.] also various
nonlinear units which ensure the nonlinear transformation of the input. The
composition of the fundamental diagram is illustrated by examples. Conversion of
the fundamental diagram into a programing block diagram is as follows: each p^{-k}
unit is recorded as a sequential chain of n integrals, and the input of each p^k unit
is transposed from the output of the corresponding p^{-n} unit to the output of the
integrator which yields the desired derivative. The known rule of signs for adders
and integrators is observed. A programing block diagram is presented, and the
rules for determining the transmission factor and scales are formulated. An
example illustrates the use of these rules. Application features of the above
method are given. The method can also be used when multiplication and division-
type nonlinearities or variable coefficients are used for the analog solution. Figs.3.

SUB CODE: DP   ENCL: 00

Card 2/2

L 1265-66

ACCESSION NR: AR5008453   UR /0271/65/000/002/B009/B009
                              518.5:681.142.32.001

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 2B50

AUTHOR: Filippovich, Ye. I.

TITLE: Methods of calculation suitable for digital computers

CITED SOURCE: Sb. Tekhn. kibernetika. Kiyev, Gostekhizdat USSR, 1963,
144-198

TOPIC TAGS: computation method, digital computer / Ural-1 computer

TRANSLATION: The rapid development of computers and their adoption for
engineering calculations have necessitated the development of numerical methods
that meet the requirements of a simple computation scheme, small capacity of
intermediate storage, etc. Solutions of several problems programmed for the
"Ural-1" computer and using only its internal storage are suggested. For solving
linear equations, a method is suggested which permits computing, on the
"Ural-1," the systems up to the 42nd order for floating-point operations and up to

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ACCESSION NR: AR5008453

the 53rd order for fixed-point operations. A new method for matrix inversion permits obtaining inverse matrices without additional inversion of triangular matrices, which results in a saving in computation time. Three computation schemes are suggested for solving the entire problem of eigen-values; the choice of the scheme depends on the particular problem. The computing methods for solving higher-order algebraic equations permit computing, on the "Ural-1" computer, real and complex roots of equations of practically any order (up to the 94th order in the first method, and up to the 180th order in the second). Also, two simple algorithms are suggested which permit obtaining the solution of linear-inequality sets in a finite number of steps. A geometrical interpretation of the algorithm operating on the method of eliminating the redundant solutions is given. Bibl. 16.

SUB CODE: DP, MA   ENCL: 00

Card 2/2

L 3944-66   EWT(d)/FSS-2/EEC(k)-2/EWA(c)   IJP(c)   BC
ACCESSION NR: AR5014346   UR/0271/65/000/005/A016/A016
                                           621.398.001:621.391.13   26
SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy
tom, Abs. 5A112

AUTHOR: Filippovich, Ye. I.; Il'chenko, V. I.; Skirta, B. K.; Zyuzin-Zinchenko, A. A.

TITLE: Average number of peaks in a remote-control relay system caused by random
noise

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964, 29-37

TOPIC TAGS: telemechanical system, remote control

TRANSLATION: The noise immunity is calculated for a frequency-type remote-control
receiver which comprises a narrow band filter, a detector, and a relay. Formulas
are developed for the average number of peaks of the envelope and for the time
of the closed state of the relay contacts, in the case of an input LC filter and
for a rectangular-attenuation-characteristic filter. An experimental hookup used
for verifying the theory is described. The experimental curves show that the
calculations correctly describe the physical processes transpiring in the system.

SUB CODE: IE
Card 1/1   ENCL: 00

FILIPPOVICH, Ye.I.

Calculation of steady-state conditions of ventilation systems.
(MIRA 19:2)
Vych. mat. [Kiev] no. 1:3-19 '65

L'VOVA, S.D.; YEVSTIGNEYEVA, R.P.; LAVROVA, L.N.; FILIPPOVICH, Ye.I.;
PREOBRAZHENSKIY, N.A.

Claisen condensation of α-methyllevulinic acid esters. Zhur.
org. khim. 1 no.9:1560-1563 S '65.   (MIRA 18:12)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V. Lomonosova. Submitted July 17, 1964.

ACC NR: AT7000903   SOURCE CODE: UR/0000/66/000/000/0065/0072

AUTHOR: Filippovich, Ye. I.

ORG: none

TITLE: On solving problems of nonlinear programming

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut matematiki. Matematicheskiye modeli i metody optimal'nogo planirovaniya (Mathematical models and methods of optimal planning), Novosibirsk, Izd-vo Nauka, 1966, 65-72

TOPIC TAGS: nonlinear programming, linear programming, algorithm, electronic computer, mathematic space, iteration, probability

ABSTRACT: This paper contains a discussion of a method for reducing problems of nonlinear programming to seeking stationary points of a function of many variables in an unbounded domain. The transport problem is analyzed in particular. A ray $l(t)$ with the coordinates

$$l_j(t) = \zeta_j + t(u_j - \zeta_j); \quad j = \overline{1, n,}$$

which joins points ζ and u, is examined, where ζ is any point belonging to $G(x; n)$, and $u = (u_1, u_2, \ldots, u_n)$ is any point in space X. The new function $\Phi(u)$ is determined by the equation

$$\Phi(u) = \max F(l(t));$$
$$(t / l(t) \in G(x; n));$$

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ACC NR: AT7000903

where the maximum is taken along the ray $\ell(f)$ with respect to values of t for which $\ell(t) \in G(x; n)$. The functions in question must be unimodal to obtain a global extreme. In the case of nonunimodal functions, the method permits local extremes to be found. The algorithm for finding a point $\zeta \in G(x; n)$ is described, and problems of linear programming are also discussed. Orig. art. has: 51 formulas and 1 diagram.

SUB CODE: 12/ SUBM DATE: 12Apr66/ ORIG REF: 009/ OTH REF: 006

Card 2/2

FILIPPOVICH, Yu. B.

"Connection of the Proteins and Amino Acids of Hemolymph With Synthesis of Silk Proteins in the Organism of the Oak Silkworm." Thesis for degree of Cand. Chemical Sci. Sub 14 Nov 49, Moscow State Pedagogical Inst imeni V. I. Lenin.

Summary 82, 18 Dec 1952, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya, Moskva, Jan-Dec 1949.

FILIPPOVICH, Yu.B

Relation between the hemolymph proteins and amino acids and the synthesis of silk proteins in the organism of the silkworm Antheraea pernyi. S. Yu. Demyanovskii and Yu. B. Filippovich (Moscow Pedagog. Inst.). Biokhimiya 15, 437-43(1950); cf. C.A. 42, 7864c. –The sole source for the synthesis of the silk proteins are the free amino acids present in the hemolymph of the silkworm. The amino acid content is maintained at a definite level by the decompn. of pseudoglobulin.   H. Priestley

FILIPPOVICH, YU. B.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

(2)

Free amino acids in the hemolymph of the oak silkworm.
Yu. B. Filippovich (V. I. Lenin State Pedagog. Inst.,
Moscow). *Doklady Vsesoyuz. Akad. Sel'skokhoz. Nauk im.*
V. I. Lenina 18, No. 9, 39–44(1953).—By chromatography,
alanine, tyrosine, valine, lysine, threonine, cysteine and (or)
cystine, methionine, arginine, hystidine, proline, phenyl-
alanine, and tryptophan were found in the hemolymph of the
oak silkworm. The quantities of tyrosine, alanine, lysine,
and proline vary in hungry and well-fed larvae.

J. S. Joffe

FILIPPOVICH Yu B

... of proteins and amino acids of the ...
... and protein in the organism ...
... FILIPPOVICH ...
... 1954 No. 27308 ... It was found ...
... of caterpillars in the ... stage the ...
... in the hemolymph increases 2.5-3 times
... After chrysalization of the caterpil-
... content of the hemolymph drops from 7.2 to
Amino N in the hemolymph of caterpillars in the

... 78.2 mg % ... Active ...
... ...
... that these amino acids are used in the synthe-
... of silk proteins. Their contents in relation to total
amino N in the hemolymph is reduced from 35.2% before
the formation of the cocoon to 29.6% after the cocoon is
formed. Fractionation of the proteins in the hemolymph
with Na_2SO_4 showed that they comprise 3 fractions: pseudo-
globulin 41.6, euglobulin 15.3, and albumin 31%. Up to
... of the cocoon the quantity of the pseudo-
globulin increases 20 times while the content of euglobulin
... does not change materially. The following
... ... in the protein of the hemolymph:
... at 3.09 hydroxyamino acids N 15-18.60% of
the total N of the protein, alanine 6.25-8.74, glycine 1.68
... and tryptophan 1.44-2.02%. A detailed review
... of data on the compn. of the body and protein metab-
... in the mulberry and oak silkworm. 125 references.
M. Hoseh

FILIPPOVICH, Yu.B.

Amino acid content of raw silk thread from the permyi silkworm raised on oak and willow leaves. Dokl. Akad. sel'khos. 23 no.3: 34-39 '58.

(MIRA 11:4)

1.Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I. Lenina.

(Amino acids)   (Silk)

FILIPPOVICH, Yu.B.

Quantitative determination of amino acids by paper chromatography. Uch. zap. MGPI 140:147-212 '58.

Methods for evaluation of the nutritive value of feeds based on their amino acid content. Ibid.:213-221

(MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.

FILIPPOVICH, Yu.B.; VAYNER, L.I.

Ratio between the weight of the batch of material and the volume of acid during the hydrolysis of proteins in the presence of carbohydrates. Uch. zap. MGPI 140:223-230 '58.

(MIRA 16:8)

1. Iz laboratorii organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni Lenina.

AUTHOR: Filippovich, Yu. B.

SOV/156.-58-3-26/52

TITLE: The Identification of Amino Acids by Paper Chromatography
            (Identifikatsiya aminokislot khromatografii raspredeleniya na
            bumage)

ABSTRACT: Paper chromatography with ascending and descending patterns
            was used for the identification of amino acids. This modern
            chromatographic method consists of the following characteristics:
            By means of a micropipet four standard solutions are applied
            to the chromatographic paper: 1) Standard solution - a mixture
            of the amino acids investigated. 2) Standard solution - a mixture
            of amino acids without the sample of the amino acid to be inves-
            tigated. 3) Standard solution - the sample of the amino acid
            to be investigated. 4) Standard solution - a mixture of tesamino
            acids 3 times as concentrated as mixture 1.- with the samples
            to be investigated. Quinohydrone was used as developer for the
            amino acids. Employing this method of paper chromatography the
            strength, concentration and type of amino acid can be determined

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The Identification of Amino Acids by Paper
Chromatography   SOV/156-58-3-26/52

without any errors. There are 3 figures and 13 references, 0
of which is Soviet.

ASSOCIATION: **Kafedra** organicheskoy i biologicheskoy khimii
Moskovskogo gosudarstvennogo pedagogicheskogo instituta im.V.I.
Lenina (Chair of Organic and Biochemistry at the Moscow State
Pedagogic Institute imeni V.I.Lenin)

SUBMITTED: February 3, 1958

Card 2/2

5(3)
AUTHOR:

Filippovich, Yu. B.

TITLE:

The Chemism of the Reaction of α-Amino Acids With Ninhydrin
(Khimizm reaktsii α-aminokislot s ningidrinom)

PERIODICAL:

ABSTRACT:

The scheme proposed by Ruheman (Refs 1 and 2) is criticized
as inadequate. It does not explain all facts. For instance,
the formation of ammonia and the reaction between diketo-
hydrindol and ammonia is improbable. The following scheme
is proposed, which is based on known modes of reaction of
the amino acids:
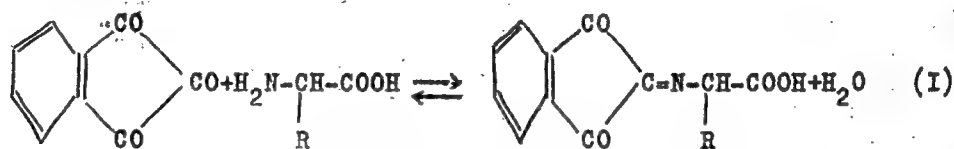
Card 1/4

The Chemism of the Reaction of α-Amino Acids With Ninhydrin
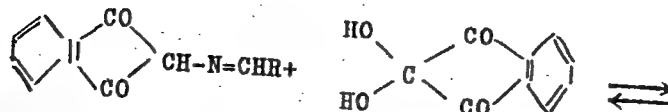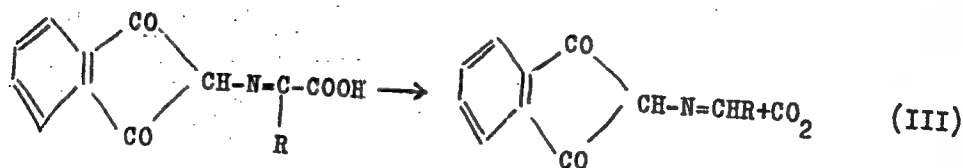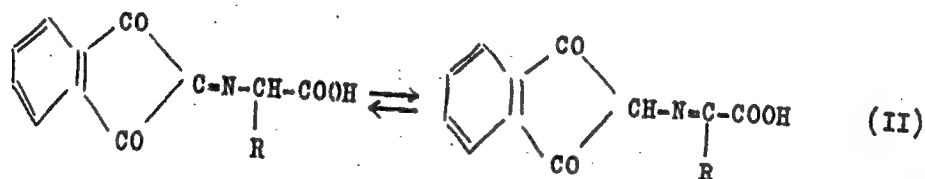
Card 2/4

The Chemism of the Reaction of α-Amino Acids With Ninhydrin   SOV/156-59-1-27/54

(IV)
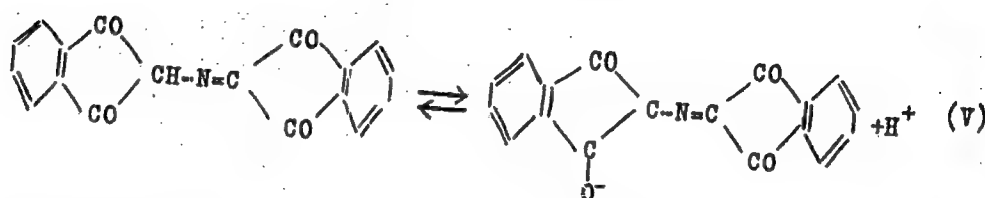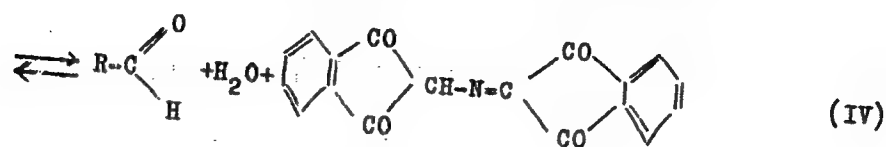
Ruheman violet

As hydrindantine is highly reactive with traces of ammonia, ninhydrine is preferred for the quantitative determination of amino acids. There are 9 references, 3 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy i biologicheskoy khimii Moskovskogo go-sudarstvennogo pedagogicheskogo instituta imeni V.I. Lenina (Chair of Organic and Biological Chemistry of Moscow State Institute of Pedagogy imeni V. I. Lenin)

Card 3/4

The Chemism of the Reaction of α-Amino Acids With Ninhydrin   SOV/156-59-1-27/54

SUBMITTED: October 17, 1958

Card 4/4

5(3)

AUTHOR: Filippovich, Yu. B.

                                                    SOV/153-2-1-4/25

TITLE: Features and Extent of the Losses of Amino Acids During the
            Development of Chromatograms (Kharakter i razmery poter'
            aminokislot v protsesse proyavleniya khromatogramm)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimiches-
            kaya tekhnologiya, 1959, Vol 2, Nr 1, pp 20-24 (USSR)

ABSTRACT: Though there are dozens of instructions (Ref 1) for the paper-
            chromatographical quantitative determination of amino acids,
            the above-mentioned problem has always been neglected, apart
            from few exceptions (Refs 2-4). This may, however, entail
            serious faults. Further, the author enumerates the sources of
            loss (Refs 3-11) of amino acids. More attention should also
            be devoted to the possible formation of double stains as a
            result of the difference in the Rf of the optical antipodes
            of amino acids (Refs 12-15). This is particularly important
            since synthetic amino acids are usually employed as indicators
            and amino acids are partially racemized during the protein
            hydrolysis. A quantitative determination obviously must afford
            above all such conditions for the development of the chromato-
            gram which permit maximum reduction of the losses mentioned.

Card 1/3

Feature and Extent of the Losses of Amino Acids
During the Development of Chromatograms   SOV/153-2-1-4/25

In the experimental part the author describes a careful and
comprehensive check of the developing agents with respect to
the losses under investigation. The figure (on p 22, not num-
bered) shows a one-dimensional chromatogram of a mixture of
eighteen amino acids. The amino acid investigated was thyroxine,
developing agents n-buthanol, 85 % formic acid, and water
(75 : 15 : 15). The following results were obtained: 1) There
are different reasons of the losses of amino acids. The
losses themselves vary according to conditions and sometimes
attain considerable values. 2) Any developing agent is to be
checked both as concerns the interaction of its components with
the amino acids to be separated and with respect to the com-
pound of the individual amino acids or to the separation of
their racemates in optical antipodes. A developing agent must
not be used for the above-mentioned purpose as longes it has
not stood this test. Table 1 shows the accuracy of the analysis
with "reliable" developing agents, and table 2 contains great
distribution of errors with the application of "unreliable"
developing agents for various amino acids. There are 1 figure,
2 tables, and 16 references, 3 of which are Soviet.

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. . Features and Extent of the Losses of Amino Acids
During the Development of Chromatograms   SOV/153-2-1-4/25

ASSOCIATION: Moskovskiy gosudarstvennyy pedagogicheskiy institut im.
V. I. Lenina; Kafedra organicheskoy i biologicheskoy khimii
(Moscow State Pedagogical Institute imeni V. I. Lenin;
Chair of Organic and Biological Chemistry)

SUBMITTED: January 9, 1958

Card 3/3

FILIPPOVICH, Yu.B.

Amino acid composition of the silkworm body at different develop-
mental stages. Nauch.dokl.vys.shkoly; biol.nauki no.2:83-86 '59.
(MIRA 12:6)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii
Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I.
Lenina.

(SILKWORMS) (AMINO ACIDS)

FILIPPOVICH, Yu.B.

Assimilation, breakdown and synthesis of amino acids in the silk-
worm organism. Biokhimiia 24 no.5:904-911 S-O '59.   (MIRA 13:2)

1. Kafedra organicheskoy i biologicheskoy khimii Gosudarstvennogo
pedagogicheskogo instituta im. V.I. Lenina, Moskva.
        (AMINO ACIDS metab.)

FILIPPOVICH, Yu.B.

Amino acid concentration in oak and willow leaves at different seasons of the year. Nauch.dokl.vys.shkoly: biol.nauki no.4:175-179 '60.
                                                        (MIRA 13:11)

1. Rekomendovana kafedroy organicheskoy i biologicheskoy khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I.Lenina.
          (AMINO ACIDS)
          (OAK)
          (WILLOWS)
          (LEAVES)

S/075/60/015/003/028/033/XX
B005/B066

AUTHOR: Filippovich, Yu. B.

TITLE: Reproducibility of Results in the Quantitative Determination of Amino Acids by Paper Chromatography

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 3, pp. 374 - 375

TEXT: In the quantitative determination of amino acids by means of paper chromatography the amino acid content in the sample is in most cases determined on the basis of a calibration curve. This method however leads to erroneous results (Ref.1). The author of the present paper availed himself of an abundant numerical material obtained experimentally to study the reproducibility of the results and the possibility of using calibration curves in the quantitative determination of amino acids by paper chromatography. The experimental data were obtained in 1955-1957 in paper chromatographic determinations of the amino acid content in the organism of the yama-maĭ and characterize the fluctuations of the extinction values of solutions of the copper salt of

Card 1/4

Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

S/075/60/015/003/028/033/XX
B005/B066

diketo-hydrindylidene-diketo-hydrindamine, which were obtained from dif-
ferent chromatograms of equal amounts of the corresponding amino acid.
These fluctuations were found to be very considerable. The root mean
square deviation for alanine, leucine and isoleucine, glutamic acid,
arginine, and lysine (obtained from 54 chromatograms each) was 10.5%,
for glycine, valine, serine, threonine, histidine, and tyrosine (obtained
from 59 chromatograms each) 15.1%, for aspartic acid, proline and phenyl
alanine (obtained from 39 chromatograms each) 23.0%, and for cystine and
cysteine (obtained from 54 chromatograms) 29.6%. This poor reproducibili-
ty of results makes the use of calibration curves for the amino acid de-
termination impossible. If, however, the content of amino acids in the
sample is determined at otherwise equal conditions of analysis by com-
paring with a standard mixture which is developed in the same chromato-
gram, well reproducible results are obtained. In this case the root mean
square deviation obtained from 11 chromatograms each for the results of
glycine, alanine, arginine, and tyrosine was 2.2%, and for leucine and
isoleucine, serine, threonine, lysine, histidine, proline, and phenyl
alanine 5.3%. The considerable fluctuations of the results obtained from

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Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

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different chromatograms are due to the following causes: 1) the inevitable
loss of amino acids (by adsorption on the paper, by reaction of amino
acids with one another or with components of the developer, by cleavage
of racemic amino acids into the optical antipodes, etc) during the de-
velopment of the chromatograms; 2) the change of the reaction sensitivity
of amino acids with ninhydrin, when changing the conditions during color
formation (temperature, moisture, paper quality, kind and concentration
of the ions present in the paper, quality of ninhydrin, presence of
oxidizing or reducing agents in the paper, composition of the surrounding
gas atmosphere, degree of the removal of the developer from the paper,
and other factors). It is therefore not possible to standardize the con-
ditions of the analysis. Satisfactory reproducibility and sufficient ac-
curacy of results may only be obtained in the quantitative determination
of amino acids by means of paper chromatography, if the colors of the
mixture to be analyzed and of the standard mixture are determined in one
and the same chromatogram. Only in this case the conditions for the
sample and standard mixture are really identical in all stages of the
analysis. There are 2 references: 1 Soviet and 1 German.

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Reproducibility of Results in the
Quantitative Determination of Amino Acids
by Paper Chromatography

S/075/60/015/003/028/033/XX
B005/B066

ASSOCIATION: Moskovskiy gosudarstvennyy pedagogicheskiy institut
im. V. I. Lenina (Moscow State Pedagogical Institute
imeni V. I. Lenin)

SUBMITTED: June 30, 1958

Card 4/4